

first and second left diagonals are in place.

5. Similar stringing is done with the first and second right diagonals.

6. Continue, inserting then tensioning diagonal strings, as shown in Fig. 5, alternating tensioning one diagonal in each diagonal direction until the frame is completed.

7. After the frame is strung, the dimensions are measured against the original dimensions before stringing.

8. If the frame has changed dimensions, then pick a different hole pattern using the same holes drilled in the frame, but changing the angle of the diagonals. If the frame has elongated, make the angle of the diagonals more vertical. That is, if the first string went from hole #2 to hole #18, then try putting it in hole #2 and hole #19. If the frame got shorter, then the first string should be placed in hole #2 and hole #17, thus decreasing the angle and offsetting the frame shortening. The rest of the frame should be completed by keeping the strings subsequently parallel to these starting strings.

9. If choosing new holes for stringing does not result in a frame that is distortion free after stringing, then start with another frame that has no holes, create a new pattern, and drill another frame using the information gathered. For every 1/8 inch of distortion, the angle of the diagonals has to be adjusted one degree. If the frame is distorted by elongating, increase Angle A by one degree, and if the frame is distorted by shortening, for every 1/8 inch of distortion, decrease Angle A by one degree.

What is claimed is:

1. A sports racket, comprising;  
a frame defining a rounded opening of predetermined shape with a vertical axis and a horizontal axis;  
a handle secured to the frame and lying at least substantially along the vertical axis; and  
strings supported by the frame and suspended within said opening, said strings being arranged in two parallel, interwoven groups wherein strings of the first group intersect a reference line parallel to the horizontal axis at an angle of about 49-60 degrees above said reference line and strings of the second group intersect the reference line at an angle of about 49-60 degrees below the reference line.
2. The sports racket according to claim 1, wherein the predetermined shape is an oval and said intersection angles are between about 51 -58 degrees.
3. The sports racket according to claim 2, wherein said intersection angles are about 53 degrees.
4. The sports racket according to claim 1, wherein said predetermined shape is a circle and said intersection angles are about 60 degrees.
5. The sports racket according to claim 1, wherein the spacing between adjacent parallel strings is between about 0.25 to 0.75 inches.
6. The sports racket according to claim 5, wherein the spacing between adjacent parallel strings is about 0.375 inches.

7. The sports racket according to claim 1, wherein the intersection angle is selected to minimize distortion of said predetermined shape.

8. The racket according to claim 1, wherein every other string is tensioned.

9. A sports racket, comprising:

a frame defining an oval opening of predetermined dimensions with a vertical axis oriented along the elongated dimension and a perpendicular horizontal axis;

a handle secured to the frame and lying at least substantially along the vertical axis; and

strings supported by the frame and suspended within said opening, said strings being arranged in two parallel intersecting groups with adjacent strings spaced apart by approximately 0.25 to 0.75 inches and wherein strings of the first group intersect a reference line parallel to the horizontal axis at an angle of about 51-58 degrees above said reference line and strings of the second group intersect the reference line at an angle of about 51-58 degrees below the reference line, said intersection angles being selected to minimize distortion of said predetermined dimensions.

10. A method for diagonal stringing of a sports racket, said strings being arranged in two parallel intersecting groups, the intersection being at an angle other than 90 degrees, said method comprising:

creating a diagonal stringing pattern with a nominal intersection angle between the strings, including a representation of at least substantially all strings of the racket to be strung;

applying said stringing pattern to a first racket frame of a construction type;

determining an intersection point for each string representation with the frame;

providing string holes in the frame at said intersection points;

stringing the racket through said string holes;

tensioning the strings and measuring distortion of the frame;

re-stringing the racket to eliminate any measured distortion, said re-stringing comprising changing the intersection angle between the strings by passing each string through a hole offset from the hole corresponding to the nominal intersection angle in said stringing pattern, while maintaining said strings in each group in parallel relationship;

re-tensioning the strings; and

measuring distortion and re-stringing as required to eliminate distortion of the frame.

11. The method of claim 10, further comprising:

creating a new diagonal stringing pattern based on said re-stringing;

applying said new stringing pattern to a second racket frame of said construction type;

determining an intersection point for each string representation with the second frame;

providing string holes in the second frame at said intersection points;

stringing the second racket through said string holes;

tensioning the strings and measuring distortion of the frame; and

repeating said re-stringing step with said second frame as required to eliminate distortion.

12. The method according to claim 10, wherein the racket frame comprises a frame defining an opening with a vertical axis substantially aligned with a handle and a perpendicular horizontal axis and said nominal intersection angle is approximately 55 degrees above and below the horizontal axis for first and second groups of strings, respectively.